

THE LITTORAL MARINE MOLLUSCS OF NIUE ISLAND

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Abstract. Two hundred and three species of molluscs have been collected at Niue Island by Mr. N. McDowall between the years 1966-1968. These are listed together with six additional species from the Finlay and Sorrensen collections of Niue Island molluscs at the Auckland Institute and Museum. In the species list of Niue Island molluscs, figure references for each species have been cited. From a total of 209 Niue Island molluscs recorded, 83% are widely distributed throughout the Indo-Pacific, 14% are Pacific endemics and 3% are Polynesian endemics; none are endemic to Niue Island.

The molluscan fauna of Niue Island has, until recent times, been imperfectly known, and representative collections in Museums consisted of only small sample lots. The molluscan collections made by Mr. N. McDowall, a resident of Niue Island, during the years 1966-68, greatly supplement our knowledge of Niue Island's molluscs and their relationship to other Pacific faunules. Contrary to expectations, the bulk of Niue Island molluscs show a close relationship to molluscs of the Melanesian region, despite the island's geographical position within the Polynesian zoogeographic province which extends westward to the Tongan trough.

ZOOGEOGRAPHY

Niue Island, a small coral atoll situated at Lat. 19°02' S and Long. 169°50' W, is a New Zealand territory, annexed in 1901 and administered by the Department for Island Territories. Only $13\frac{2}{3}$ x $11\frac{1}{2}$ miles (22.1-34.6 km) in dimension, Niue Island lies approximately 300 miles (483 km) to the east of the Tonga group and 580 miles (933.8 km) west of the Cook Islands. Niue is a coral atoll which has undergone two successive uplifts which were responsible for the formation of the lagoon bed in the centre of the Island, and occasional deep chasms such as may be found at Matapa and Vailoa. Beneath the topsoil of the old lagoon bed is coral sand, which is prolific in Pleistocene fossils, especially *Strombus mutabilis* Swainson.

The island consists of two terraces: the west coast terrace ca. 400 yards (365.8 m) in width, accommodates western villages and rises to almost 100 feet (30.5 m). Beyond this terrace is the second cliff, eroded to form a steep hill, and rising to the island's highest point of 220 feet (67.1 m). A shore reef skirts the island which apart from small breaks is almost continuous. At Alofi, the main town on the west coast, the reef extends for almost 2 miles (3.2 km) northward, and attains a width of about 80 yards (73.1 m). Towards the north coast there are small reefs at Vaohina, Namoui and Oneone. A larger reef commences at Hikutavake and extends northward with occasional small breaks. Kavata reef, at the extreme north point of the island, is about 2 miles (3.2 km) long and fairly wide; there is a paucity of molluscs on

this reef. On the eastern coast of the island are small stretches of reef at Tuavao, Vaitafe, Motu, Hiola, Tautu, Vaotoi, Uani and Hakupu. At Tapa Point in the south, a reef extends for 3 miles (4.8 km) to Fakaava. West coast reefs are flat-topped coral terraces which slowly rise towards the reef edge; within the intertidal zone, coral sand is at a minimum. Beyond the reef edge there is a sharp drop to a depth of 40 feet (12.2 m) to a sand and coral-rubble terrace; from this terrace the sea-bottom gradually slopes downward for several hundred yards and is followed by a steep descent to deeper water.

Mean winter water temperatures taken in 1966 were 24.3°C, mean summer water temperatures 25.8°C. A spot check taken by Mr. McDowall in December 1967 gave a water temperature reading of 26.9°C.

The majority of Niue Island molluscs are widely distributed in the Indo-Pacific region, and the number of Pacific and Polynesian endemics is small. Orr-Maes (1967), in her study of the littoral marine molluscs of the isolated Indian Ocean Cocos-Keeling Islands, obtained rather similar distributional figures to those of Niue Island: Cocos-Keeling 82% of Indo-Pacific endemics (Niue I.—83%); Cocos-Keeling Pacific endemics 15% (Niue I.—14%, but no Indian Ocean endemics); Cocos-Keeling Indian Ocean endemics 3% (Niue I.—Polynesian endemics 3%). These figures tend to lend support to the theory of an Indo-Pacific molluscan fauna origin in the central Indo-Pacific arc (Philippines-Indonesian region), and a subsequent migration to the West and East. Towards the fringe areas of the east-west distribution, Indian Ocean and Pacific Ocean endemics have evolved through time and isolation; not only does the number of species decline in these east-west distributional fringe areas, but the percentage of Indian and Pacific Ocean endemics is more or less proportionate. On Cocos-Keeling Islands, the littoral molluscs were predominantly gastropods, while pelecypods, scaphopods and Amphineura were recorded in very small numbers. This is the case on Niue Island, where the paucity of pelecypods and scaphopods is conspicuous. Due to their shorter planktonic life, most pelecypods and scaphopods did not survive the early migrational drift towards the central Pacific.

GASTROPODA

Family TROCHIDAE

Genus TROCHUS Linnaeus, 1758

Trochus maculatus Linnaeus, 1758 Kira, 1959, pl. 9; fig. 1a, b

Family TURBINIDAE

Genus TURBO Linnaeus, 1758

Turbo (Marmarostoma) argyrostomus Linnaeus, 1758 Kira, 1959, pl. 9; fig. 6

Family NERITIDAE

Genus NERITA Linnaeus, 1758

Nerita albicilla Linnaeus, 1758 Kira, 1959, pl. 11; fig. 15
N. plicata Linnaeus, 1758 Kira, 1959, pl. 11; fig. 17
N. polita Linnaeus, 1758 Kira, 1959, pl. 11; fig. 19

Family ARCHITECTONIDAE

Genus HELIACUS d'Orbigny, 1842

Heliacus variegatus (Gmelin, 1791) Kira, 1959, pl. 12; fig. 4

Family TRIVIIDAE

Genus TRIVIROSTRA Jousseaume, 1884

- Trivirostra hordacea** (Kiener, 1843) Cernohorsky, 1968a, pl. 51; fig. 19
T.oryza (Lamarck, 1811) Cernohorsky, 1967, pl. 22; fig. 133

Genus LACHRYMA Sowerby [1832]

- Lachryma sulcifera** (Sowerby, 1832) Cernohorsky, 1963a, pl. 52; fig. 21a-22a

Family CYPRAEIDAE

Genus MAURITIA Troschel, 1863

- Mauritia arabica** (Linnaeus, 1758) Cernohorsky, 1967, pl. 9; fig. 40
M.depressa (Gray, 1824) Cernohorsky, 1967, pl. 9; fig. 41, 41a
M.maculifera Schilder, 1932 Cernohorsky, 1967, pl. 10; fig. 43
M.mauritiana (Linnaeus, 1758) Cernohorsky, 1967, pl. 10; fig. 45
M.scurra (Gmelin, 1791) Cernohorsky, 1967, pl. 10; fig. 46

Genus TALPARIA Troschel, 1863

- Talparia talpa** (Linnaeus, 1758) Cernohorsky, 1967, pl. 8; fig. 31
T.isabella (Linnaeus, 1758) Cernohorsky, 1967, pl. 8; fig. 32

Genus CYPRAEA Linnaeus, 1758

- Cypraea tigris** (Linnaeus, 1758) Cernohorsky, 1967, pl. 8; fig. 30

Genus LYNCINA Troschel, 1863

- Lyncina carneola** (Linnaeus, 1758) Cernohorsky, 1967, pl. 8; fig. 35
L.schilderorum (Iredale, 1939) Cernohorsky, 1967, pl. 9; fig. 38
L.lynx (Linnaeus, 1758) Cernohorsky, 1967, pl. 8; fig. 36
L.ventriculus (Lamarck, 1811) Cernohorsky, 1967, pl. 8; fig. 37

The radula of the species confirms the placement of the species in the genus *Lyncina* (Fig. 1)

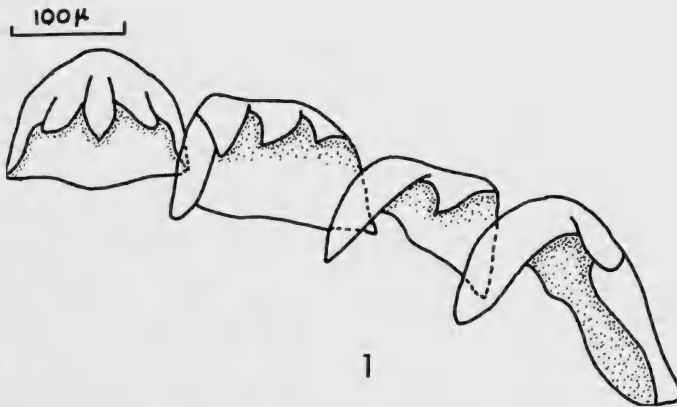


Fig. 1. Half-row of radula of *Lyncina ventriculus* (Lamarck) from Niue Island.

Genus CHELYCYPRAEA Schilder, 1927

- Chelycypraea testudinaria** (Linnaeus, 1758) Cernohorsky, 1967, pl. 8; fig. 29

Genus PUSTULARIA Swainson, 1840

Pustularia cicercula (Linnaeus, 1758) Cernohorsky, 1967, pl. 10; fig. 47

This is the species known in recent literature as *Pustularia bistrinotata* Schilder & Schilder, 1937.

P.childreni (Gray, 1825) Cernohorsky, 1967, pl. 10; fig. 48

P.globulus (Linnaeus, 1758) Cernohorsky, 1967, pl. 11; fig. 51

P.margarita (Dillwyn, 1817) Cernohorsky, 1967, pl. 11; fig. 52

P.mariae Schilder, 1927 Cernohorsky, 1967, pl. 10; fig. 49

Genus MONETARIA Troschel, 1863

Monetaria annulus (Linnaeus, 1758) Cernohorsky, 1967, pl. 11; fig. 53

M.moneta (Linnaeus, 1758) Cernohorsky, 1967, pl. 11; fig. 54

Genus EROSARIA Troschel, 1863

Erosaria caputserpentis (Linnaeus, 1758) Cernohorsky, 1967, pl. 12; fig. 59

E.dillwyni (Schilder, 1922) Cernohorsky, 1967, pl. 12; fig. 58

E.erosa (Linnaeus, 1758) Cernohorsky, 1967, pl. 12; fig. 61

E.helvola (Linnaeus, 1758) Cernohorsky, 1967, pl. 12; fig. 63

E.poraria (Linnaeus, 1758) Cernohorsky, 1967, pl. 13; fig. 65

Genus STAPHYLAEA Jousseaume, 1884

Staphylaea limacina (Lamarck, 1811) Cernohorsky, 1967, pl. 13; fig. 69

S.nucleus (Linnaeus, 1758) Cernohorsky, 1967, pl. 13; fig. 68

Genus ERRONEA Troschel, 1863

Erronea caurica (Linnaeus, 1758) Cernohorsky, 1967, pl. 14; fig. 73

Genus NOTADUSTA Schilder, 1935

Notadusta punctata (Linnaeus, 1771) Cernohorsky, 1967, pl. 16; fig. 87

Genus PALMADUSTA Iredale, 1930

Palmadusta asellus (Linnaeus, 1758) Cernohorsky, 1967, pl. 16; fig. 88

P.fimbriata (Gmelin, 1791) Cernohorsky, 1967, pl. 17; fig. 94

P.irrorata (Gray, 1828) Cernohorsky, 1967, pl. 13; fig. 67

P.minoridens (Melville, 1901) Cernohorsky, 1967, pl. 17; fig. 96

P.serrulifera Schilder & Schilder, 1938 Cernohorsky, 1967, pl. 17; fig. 99

Genus BISTOLIDA Cossmann, 1920

Bistolida goodallii (Sowerby, 1832) Cernohorsky, 1967, pl. 18; fig. 102

B.stolida (Linnaeus, 1758) Cernohorsky, 1967, pl. 19; fig. 108

B.ursellus (Gmelin, 1791) Cernohorsky, 1967, pl. 19; fig. 111

Family CASSIDAE

Genus CASSIS Scopoli, 1777

Cassis cornuta (Linnaeus, 1758) Abbott, 1968, pl. 3; fig. 1-4

Genus CASMARIA H. & A. Adams, 1853

Casmaria erinaceus erinaceus (Linnaeus, 1758) Abbott, 1968, pl. 14; fig. 7-12

C.ponderosa ponderosa (Gmelin, 1791) Abbott, 1968, pl. 14; fig. 1-6

Family CYMATIIDAE

Genus CYMATIUM Röding, 1798

Cymatium muricinum (Röding, 1798) Cernohorsky, 1967, pl. 5; fig. 19

C.nicobaricum (Röding, 1798) Cernohorsky, 1967, pl. 3; fig. 11

C.pileare (Linnaeus, 1758) Cernohorsky, 1967, pl. 3; fig. 9, 10

Genus *DISTORSIO* Röding, 1798*Distorsio anus* (Linnaeus, 1758) Cernohorsky, 1967, pl. 6; fig. 23Genus *CHARONIA* Gistel, 1848*Charonia tritonis* (Linnaeus, 1758) Cernohorsky, 1967, pl. 7; fig. 26

Family BURSIDAE

Genus *BURSA* Röding, 1798*Bursa bubo* (Linnaeus, 1758) Cernohorsky, 1967, pl. 1; fig. 1*B. bufonia* (Gmelin, 1791) Cernohorsky, 1967, pl. 2; fig. 5*B. cruentata* (Sowerby, 1835) Cernohorsky, 1967, pl. 2; fig. 7

Two forms of this species occur on Niue Island: the form with distinct black columellar bars, and the one with a plain white columella.

B. granularis (Röding, 1798) Cernohorsky, 1967, pl. 1; fig. 4*B. rosa* Perry, 1811 Cernohorsky, 1967, pl. 1; fig. 3

Family TONNIDAE

Genus *TONNA* Brünnich, 1772*Tonna perdix* (Linnaeus, 1758) Kira, 1959, pl. 22; fig. 6

Family MURICIDAE

Genus *CHICOREUS* Montfort, 1810*Chicoreus brunneus* (Link, 1807) Cernohorsky, 1967, pl. 25; fig. 148Genus *PTERYNOTUS* Swainson, 1833*Pterynotus triqueter* (Born, 1778) Cernohorsky, 1967, pl. 26; fig. 160Genus *THAIS* Röding, 1798*Thais armigera affinis* (Reeve, 1846) Reeve, 1846, pl. 15; fig. 77*T. intermedia* (Kiener, 1836) Cernohorsky, 1967, pl. 28; fig. 173Genus *MANCINELLA* Link, 1807*Mancinella tuberosa* (Röding, 1798) Cernohorsky, 1967, pl. 28; fig. 174Genus *DRUPA* Röding, 1798*Drupa clathrata* (Lamarck, 1816) Habe & Kosuge, 1967, pl. 27; fig. 29*D. morum* Röding, 1798 Cernohorsky, 1967, pl. 23; fig. 176*D. ricinus* (Linnaeus, 1758) Cernohorsky, 1967, pl. 28; fig. 175 & pl. 29; f. 177

Both forms, the pure white and the orange-spotted form, occur on Niue Island.

Genus *DRUPINA* Dall, 1923*Drupina grossularia* (Röding, 1798) Cernohorsky, 1967, pl. 29; fig. 179*D. rubusidaeus* (Röding, 1798) Cernohorsky, 1967, pl. 29; fig. 180Genus *DRUPELLA* Thiele, 1925*Drupella cornus* (Röding, 1798) Habe & Kosuge, 1967, pl. 27; fig. 20Genus *MORULA* Schumacher, 1817*Morula granulata* (Duclos, 1832) Cernohorsky, 1967, pl. 29; fig. 178*M. uva* (Röding, 1798) Habe, 1961, pl. 26; fig. 1*M. marginatra* (Blainville, 1832) Orr-Maes, 1967, pl. 11; fig. KGenus *NASSA* Röding, 1798*Nassa sarta* (Bruguère, 1789) Cernohorsky, 1967, pl. 29; fig. 183

Family MAGILIDAE

Genus RAPA Röding, 1798

Rapa rapa (Linnaeus, 1758) Kira, 1959, pl. 24; fig. 17

Genus CORALLIOPHILA H. & A. Adams, 1853

Coralliophila violacea (Kiener, 1836) Kira, 1959, pl. 25; fig. 2

Family BUCCINIDAE

Genus CADUCIFER Dall, 1904

Caducifer truncatus (Hinds, 1844) Habe, 1961, pl. 31; fig. 4

Genus CANTHARUS Röding, 1798

Cantharus undosus (Linnaeus, 1758) Kira, 1959, pl. 26; fig. 8

Genus ENGINA Gray, 1839

Engina mendicaria (Linnaeus, 1758) Kira, 1959, pl. 26; fig. 1

Family COLUBRARIIDAE

Genus COLUBRARIA Schumacher, 1817

Colubraria tortuosa (Reeve, 1844) Cernohorsky, 1967, pl. 7; fig. 28

Family NASSARIIDAE

Genus NASSARIUS Dumeril, 1806

Nassarius graniferus (Kiener, 1834) Habe, 1961, pl. 32; fig. 12**N. livescens** (Philippi, 1849) Kira, 1959, pl. 28; fig. 17**N. papillosus** (Linnaeus, 1758) Kira, 1959, pl. 28; fig. 28

Family FASCIOLARIIDAE

Genus LATIRUS Montfort, 1810

Latirus (Pleuroploca) filamentosus (Röding, 1798) Habe & Kosuge, 1966, pl. 25; fig. 10**L. (Mazzalina) smaragdulus** (Linnaeus, 1758) Kira, 1959, pl. 30; fig. 19

Genus PERISTERIA Mörch, 1852

Peristernia nassatula (Lamarck, 1822) Kira, 1959, pl. 30; fig. 8

Family VASIDAE

Genus VASUM Röding, 1798

Vasum ceramicum (Linnaeus, 1758) Abbott, 1959, pl. 1; fig. 1

Family OLIVIDAE

Genus OLIVA Bruguière, 1789

Oliva annulata (Gmelin, 1791) Cernohorsky, 1967, pl. 46; fig. 334**O. duclosi** Reeve, 1850 Habe & Kosuge, 1966, pl. 27; fig. 4

Family MITRIDAE

Genus MITRA Röding, 1798

Mitra chrysalis Reeve, 1844 Cernohorsky, 1967, pl. 30; fig. 190**M. coffea** Schubert & Wagner, 1329 Cernohorsky, 1967, pl. 30; fig. 192**M. coronata** Lamarck, 1811 Cernohorsky, 1967, pl. 31; fig. 195**M. ferruginea** Lamarck, 1811 Cernohorsky, 1967, pl. 31; fig. 198**M. imperialis** Röding, 1798 Cernohorsky, 1967, pl. 31; fig. 201**M. lugubris** Swainson, 1821 Cernohorsky, 1967, pl. 31; fig. 202**M. mitra** (Linnaeus, 1758) Cernohorsky, 1967, pl. 32; fig. 204

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| <i>M. stictica</i> (Link, 1807) | Cernohorsky, 1967, pl. 33; fig. 218 |
| <i>M. (Strigatella) acuminata</i> Swainson, 1824 | Cernohorsky, 1967, pl. 34; fig. 225 |
| <i>M. (Strigatella) auriculoides</i> Reeve, 1845 | Cernohorsky, 1967, pl. 30; fig. 186 |
| <i>M. (Strigatella) colombelliformis</i> Kiener, 1838 | Cernohorsky, 1967, pl. 31; fig. 193 |
| <i>M. (Strigatella) decurtata</i> Reeve, 1844 | Reeve, 1844, pl. 20; fig. 154 |

For the radula of this species, see Fig. 2.



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Fig. 2. Half-row of radula of *Mitra (Strigatella) decurtata* Reeve from Niue Island.

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| <i>M. (Strigatella) fastigium</i> Reeve, 1845 | Cernohorsky, 1967, pl. 34; fig. 229 |
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This is the earliest name applicable to this species. *Strigatella fuscescens* Pease, 1860, and *Mitra brunnea* Pease, 1868, are synonyms. *Mitra oleacea* Reeve, 1844 (non Cernohorsky, 1965) is a chronologically prior name for the species *M. quoyi* Deshayes & M. Edwards, 1844 (a *nom. pro Mitra nigra* Quoy & Gaimard, 1833—non Gmelin, 1791).

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| <i>M. (Strigatella) litterata</i> Lamarck, 1811 | Cernohorsky, 1967, pl. 34; fig. 227 |
| <i>M. (Strigatella) paupercula</i> (Linnaeus, 1758) | Cernohorsky, 1967, pl. 34; fig. 228 |
| <i>M. (Strigatella) pellisserpentis</i> Reeve, 1844 | Cernohorsky, 1967, pl. 34; fig. 230 |
| <i>M. (Strigatella) typha</i> Reeve, 1845 | Reeve, 1845, pl. 33; fig. 267 |

Genus NEOCANCILLA Cernohorsky, 1966

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| <i>Neocancilla clathrus</i> (Gmelin, 1791) — Finlay coll. | Cernohorsky, 1967, pl. 35; fig. 238 |
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Genus IMBRICARIA Schumacher, 1817

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| <i>Imbricaria conovula</i> (Quoy & Gaimard, 1833) | Cernohorsky, 1967, pl. 37; fig. 253 |
| <i>I. punctata</i> (Swainson, 1821) | Cernohorsky, 1967, pl. 37; fig. 256 |

Genus PTERYGIA Röding, 1798

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| <i>Pterygia nucea</i> (Gmelin, 1791) | Cernohorsky, 1967, pl. 38; fig. 262 |
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Genus VEXILLUM Röding, 1798

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| <i>Vexillum (Costellaria) cancellarioides</i> (Anton, 1839) | Cernohorsky, 1967, pl. 44; fig. 323 |
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The species is generally assigned to the genus *Pusia*, the radula, however, is of the same pattern as *Vexillum* Röding.

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| <i>V. (Costellaria) festum</i> (Reeve, 1845) — Finlay coll. | Cernohorsky, 1967, pl. 40; fig. 282 |
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Genus PUSIA Swainson, 1840

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| <i>Pusia consanguinea</i> (Reeve, 1845) | Cernohorsky, 1967, pl. 45; fig. 324 |
| <i>P. diutenera</i> (Hervier, 1897) — Finlay coll. | — |
| <i>P. hervieri</i> (Dautzenberg & Bouge, 1923) | Dautzenberg & Bouge, 1923, pl. 2; fig. 10, 11 |
| <i>P. microzonias</i> (Lamarck, 1811) | Cernohorsky, 1967, pl. 45; fig. 328 |
| <i>P. millecostata</i> (Broderip, 1836) | Cernohorsky, 1967, pl. 44; fig. 321 |

Mitra adamsonii Reeve, 1844, is a synonym of *Pusia millecostata* (Broderip).

- P.picea** (Pease, 1860) J. Cate, 1963, pl. 7; fig. 27-29
P.moelleri (Küster, 1840) —

Mitra flammulata Pease, 1868, and *M.baldwinii* Melvill, 1899, are synonyms of *Pusia moelleri* (Küster).

- P.rosea** (Broderip, 1836) Reeve, 1844, pl. 36; fig. 300
P.speciosa (Reeve, 1844) — Finlay coll. Reeve, 1844, pl. 19; fig. 148
P.suavis (Souverbie, 1875) J. Cate, 1963, pl. 6; fig. 23

This species is occasionally confused with *Mitra exquisita* Garrett, 1873. Garrett's syntypes are extant in the Bernice P. Bishop Museum in Honolulu; they are a *Thala* species and conspecific with *Vexillum(Thala) mirificum* (Reeve, 1845).

- P.tuberosa** (Reeve, 1845) Cernohorsky, 1967, pl. 45; fig. 333
P.turben (Reeve, 1845) J. Cate, 1962, pl. 34; fig. 7-8
P.tusa (Reeve, 1845) J. Cate, 1963, pl. 6; fig. 15-18

The species illustrated by J. Cate (1963) is *Pusia tusa* (Reeve) and not *P.alveolus* (Reeve).

Family HARPIDAE

Genus HARPA Röding, 1798

- Harpa amouretta** Röding, 1798 Kira, 1959, pl. 31; fig. 16

Family TURRIDAE

Genus LIENARDIA Jousseau, 1884

- Lienardia rubida** (Hinds, 1843) Powell, 1966, pl. 17; fig. 21

Genus LOVELLONA Iredale, 1917

- Lovellona atramentosa** (Reeve, 1849) Powell, 1966, pl. 10; fig. 13

Family CONIDAE

Genus CONUS Linnaeus, 1758

- Conus arenatus** Hwass in Bruguière, 1792 Cernohorsky, 1964, pl. 14; fig. 27
C.aristophanes Sowerby, 1857 Cernohorsky, 1964, pl. 18; fig. 67
C.auricomus Hwass in Bruguière, 1792 Habe, 1961, pl. 37; fig. 3
C.balteatus Sowerby, 1833 Cernohorsky, 1964, pl. 16; fig. 49
C.catus Hwass in Bruguière, 1792 Cernohorsky, 1964, pl. 15; fig. 42
C.ceylanensis Hwass in Bruguière, 1792 Reeve 1843, pl. 37; fig. 199
C.chaldaeus (Röding, 1798) Cernohorsky, 1964, pl. 18; fig. 70
C.coronatus Gmelin, 1791 Cernohorsky, 1964, pl. 18; fig. 68
C.cylindraceus Broderip & Sowerby, 1830 Cernohorsky, 1964, pl. 17; fig. 58
C.distans Hwass in Bruguière, 1792 Cernohorsky, 1964, pl. 12; fig. 4
C.ebraeus Linnaeus, 1758 Cernohorsky, 1964, pl. 18; fig. 69
C.eburneus Hwass in Bruguière, 1792 Cernohorsky, 1964, pl. 12; fig. 3
C.flavidus Lamarck, 1810 Cernohorsky, 1964, pl. 16; fig. 48
C.geographus Linnaeus, 1758 Cernohorsky, 1964, pl. 15; fig. 37
C.imperialis Linnaeus, 1758 Cernohorsky, 1964, pl. 12; fig. 11
C.litoglyphus Hwass in Bruguière, 1792 Cernohorsky, 1964, pl. 17; fig. 61
C.litteratus Linnaeus, 1758 Cernohorsky, 1964, pl. 12; fig. 2
C.lividus Hwass in Bruguière, 1792 Cernohorsky, 1964, pl. 16; fig. 50
C.marmoreus Linnaeus, 1758
 a. forma **bandanus** Hwass in Bruguière, 1792 Cernohorsky, 1964, pl. 12; fig. 10
 b. forma **nigrescens** Sowerby, 1859 —
C.miles Linnaeus, 1758 Cernohorsky, 1964, pl. 12; fig. 7
C.miliaris Hwass in Bruguière, 1792 Cernohorsky, 1964, pl. 18; fig. 72
C.mitratus Hwass in Bruguière, 1792 Cernohorsky, 1964, pl. 17; fig. 59
C.moreleti Crosse, 1858 Cernohorsky, 1964, pl. 16; fig. 52
C.nussatella Linnaeus, 1758 Cernohorsky, 1964, pl. 17; fig. 57
C.omaria Hwass in Bruguière, 1792 Cernohorsky, 1964, pl. 13; fig. 19

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| C.pulicarius Hwass in Bruguière, 1792 | Cernohorsky, 1964, pl. 14; fig. 28 |
| C.rattus Hwass in Bruguière, 1792 | Cernohorsky, 1964, pl. 18; fig. 74 |
| C.retifer Menke, 1829 | Cernohorsky, 1964, pl. 13; fig. 25 |
| S.sanguinolentus Quoy & Gaimard, 1833 | Cernohorsky, 1964, pl. 16; fig. 51 |
| C.scabriusculus Dillwyn, 1817 | Cernohorsky, 1964, pl. 15; fig. 36 |
| C.tenuistriatus Sowerby, 1858 | Cernohorsky, 1967, pl. 59; fig. 438 |
| C.textile Linnaeus, 1758 | Cernohorsky, 1964, pl. 13; fig. 23 |
| C.tulipa Linnaeus, 1758 | Cernohorsky, 1964, pl. 15; fig. 38 |
| C.varius Linnaeus, 1758 | Cernohorsky, 1964, pl. 14; fig. 35 |
| C.vexillum Gmelin, 1791 | Cernohorsky, 1964, pl. 12; fig. 5 |
| C.vitulinus Hwass in Bruguière, 1792 | Cernohorsky, 1964, pl. 14; fig. 32 |

Family TEREBRIDAE

Genus TEREBRA Bruguière, 1789

- | | |
|---|-------------------------------------|
| Terebra (Decorihastula) affinis Gray, 1834 | Cernohorsky, 1967, pl. 49; fig. 349 |
| T. (Perirhoe) babylonia Lamarck, 1822 | Cernohorsky, 1967, pl. 49; fig. 355 |
| T. (Oxymenis) crenulata (Linnaeus, 1758) | Cernohorsky, 1967, pl. 50; fig. 361 |
| T. (Subula) dimidiata (Linnaeus, 1758) | Cernohorsky, 1967, pl. 50; fig. 362 |
| T. (Oxymenis) felina (Dillwyn, 1817) | Cernohorsky, 1967, pl. 50; fig. 364 |

Family TRIPHORIDAE

Genus TRIPHORA Blainville, 1828

Triphora pallida (Pease, 1870) —

Genus INIFORIS Jousseau, 1884

Iniforis formosula (Hervier, 1897) Habe & Kosuge, 1966, pl. 41; fig. 49

Genus CAUTOTRIPHORA Laws, 1940

Cautotriphora pavimenta (Laseron, 1958) Kosuge, 1966, pl. 1; fig. 4

Genus VIRIOLA Jousseau, 1884

Viriola incisa (Pease, 1860) Kosuge, 1961, pl. 22; fig. 9

Genus MASTONIA Hinds, 1843

Mastonia cingulifera (Pease, 1860)	Habe & Kosuge, 1966, pl. 41; fig. 11
M. undata (Kosuge, 1962)	Kosuge, 1962, pl. 8; fig. 1

The species has not been previously recorded outside its type-locality of Amami Islands, Japan.

M. ustulata (Hervier, 1897) Habe & Kosuge, 1966, pl. 41; fig. 6

Family HYDATINIDAE

Genus APLUSTRUM Schumacher, 1817

Aplustrum aplustrum (Linnaeus, 1758) Kira, 1959, pl. 39; fig. 14

Genus MICROMELO Pilsbry, 1894

Micromelo guamensis (Quoy & Gaimard, 1825) Orr-Maes, 1967, pl. 18; fig. A

Family ATYIDAE

Genus ATYS Montfort, 1810

Atys cylindrica (Helbling, 1779) Orr-Maes, 1967, pl. 17; fig. K

Family UMBRACULIDAE

Genus UMBRACULUM Schumacher, 1817

Umbraclum sinicum (Gmelin, 1791) Orr-Maes, 1967, pl. 14; fig. K

Family ELLOBIIDAE

Genus MELAMPUS Montfort, 1810

- Melampus castaneus** (Mühlfeld, 1818)—Sorrensen coll. Orr-Maes, 1967, pl. 14; fig. I
M. flavus (Gmelin, 1701)—Sorrensen coll. Orr-Maes, 1967, pl. 14; fig. J

SCAPHOPODA

Family DENTALIIDAE

Dentalium sp.

AMPHINEURA

Family CHITONIDAE

Chiton sp.

PELECYPODA

Family PTERIIDAE

Genus PTERIA Scopoli, 1777

- Pteria penguin** (Röding, 1798) Kira, 1959, pl. 71; fig. 9

Family LUCINIDAE

Genus CODAKIA Scopoli, 1777

- Codakia punctata** (Linnaeus, 1758) Kira, 1959, pl. 53; fig. 8
C. tigerina (Linnaeus, 1758) Kira, 1959, pl. 53; fig. 5

Family CARDIIDAE

Genus FRAGUM Röding, 1798

- Fragum fragum** (Linnaeus, 1758) Kira, 1959, pl. 54; fig. 14

Family TRIDACNIDAE

Genus TRIDACNA Lamarck, 1799

- Tridacna maxima** (Röding, 1798) Habe & Kosuge, 1966, pl. 61; fig. 4

Family TELLINIDAE

Genus SCUTARCOPAGIA Pilsbry, 1918

- Scutarcopagia scobinata** (Linnaeus, 1758) Kira, 1959, pl. 59; fig. 24

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